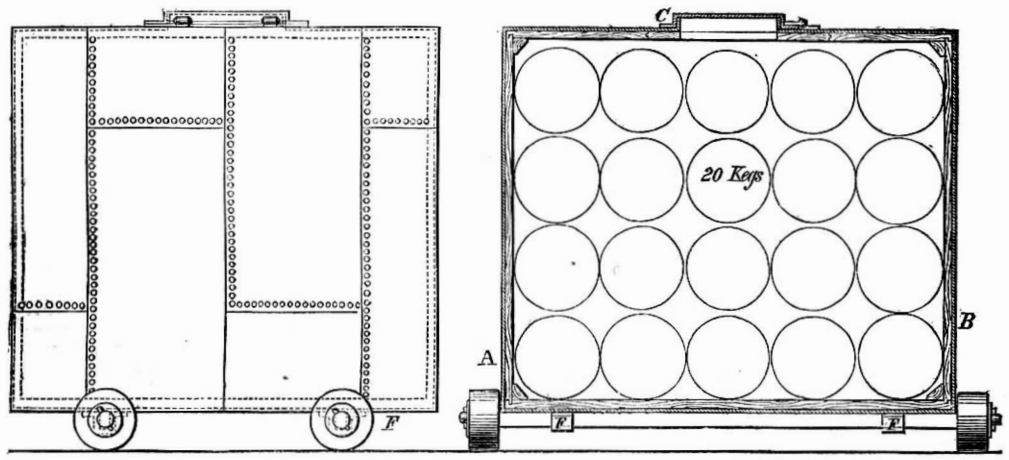
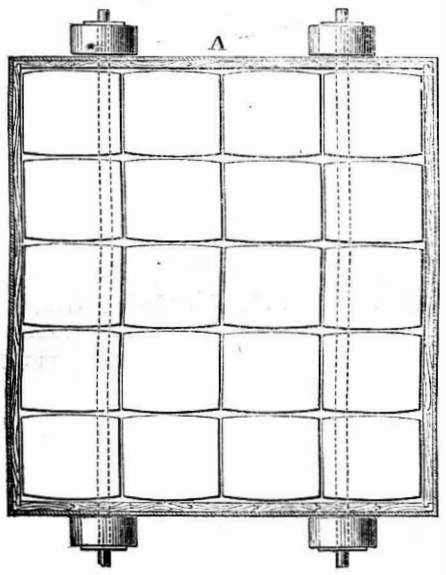
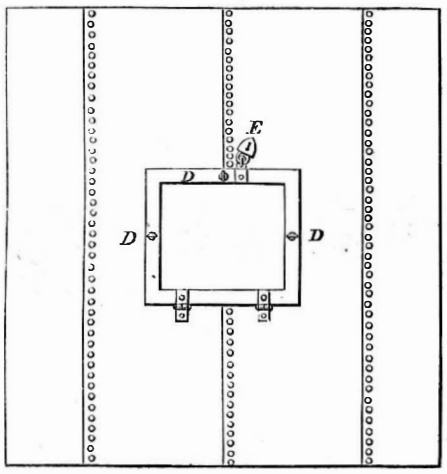
A NEW TUMBRIL CAR.

The Ordnance Department has kindly transmitted us the following plan of a tumbril car, designed for transporting gunpowder and magazine stores upon railways. It is intended to make this class of freight on which all railways demand extra risks absolutely secure against accidents. Appended is a description of the invention :—

A square box is made of 8-inch thick boiler-iron firmly riveted together. This is lined inside with oak planks; the bottom to be 2 inches thick; the sides and top 1½ inches thick. On the two sides, A and B, the planks run upright, so as to stand the lateral pressure of the filled barrels best. In the center of the top there is a charging door, 26 by 24







inches in the clear. The boiler-iron of the car is turned up 2½ inches high. The door is turned down correspondingly, and has besides, flanges all around, which are 2½ inches wide, and are covered below with vulcanized india-rubber strips ¼ of an inch thick, which fit closely on the top of the car, on which the cover is screwed down tight, by means of three screws, D D D, which work on the principle of the powder-tank-covers. Besides this the cover is locked by a padlock, E. The axles of the trucks are 2 by 3 inches, and are riveted to the cars by the two bands, F F. The ends of the axles are turned to a diameter of 2½ inches, and receive the trucks of lignum-vitæ, which have 12 inches diameter and are 4 inches thick. A middle-sized platform car of our railroads would accommodate three such cars, which on their travel will stand crosswise. One tumbril car will hold 80 barrels of powder, or a corresponding quantity of fixed ammunition. All rivets or bolts penetrating to the interior of the oak lining should be of bronze, to the total exclusion of iron. The door is located so as to give superior accommodations for charging and use of the inside space, while its make does not leave open questions about absolute security. (Signed) A Cluss.

Office of Ordnance Yard, Sept. 17, 1863.

The sale of the library of the late Henry Thomas Buckle, author of the "History of Civilization in England," realized between seven and eight thousand dollars.

Keeping Verbenas Over Winter.

A correspondent of the *Horticulturist* says :—"My 'better half' has no difficulty in keeping the verbena in the house through the winter; with her the question has been how to keep verbenas in the open border. After many experiments she has succeeded the past winter, by placing over the plant a frame made for protecting cucumber hills, having in it a 10 by 15 glass. The verbena remained in fine condition, fresh and green, all winter, was uncovered early in April, then growing vigorously, and on the 10th of May was in full bloom. Those kept in the house are potted in the fall early enough to root well before freezing weather comes on; they are then placed in the east windows of our sitting room, where we have wood fires, and never allow the frost to enter. The plants are kept clean and moist; tobacco smoke (which I can apply whenever called upon) applied when necessary, and thus the plants are kept healthy and vigorous through the entire winter. This spring they commenced blooming the last of March, were in full bloom by the middle of April, and now are in the garden as bright and beautiful as one can desire. If one will but pay attention to the plants, it is easy to see whether they are suffering from dust, want of moisture, or insects, when the proper remedy can be applied, and the plants kept in a healthy state."

Autumn Planting of Strawberries.

A correspondent of the *Country Gentleman* says :—"All growers of strawberries in the region around New York, make the most extensive autumnal plantings between the 20th of September and the 20th of November. We plant new beds until the ground is closed by frost, and always with success. Professor Huntsman says his most successful plantings are those that are made latest. Such as are planted the latter half of November we cover with a layer of sedge, straw or hay, not for the purpose of keeping it in when the ground becomes frozen; as by thus shutting out the sun's rays we cause the ground to remain permanently frozen during the winter. We find that it is not the permanent cold that injures the plants, but the thawings, which draw out many plants so that their roots become exposed, and are then winter-killed.

Great Spectroscope.—The *Chemical News* (London contains a brief description of the most powerful spectroscope ever constructed and applied to the spectrum. It has nine prisms filled with the bisulphide of carbon, giving 2¼ inches aperture, with telescope of corresponding size. This instrument has established the following points :—that the lines of the solar spectrum are as innumerable as the stars of heaven; it shows distinctly ten times as many lines as are given by Kirchoff in his chart, and an infinitude of nebulous bands just on the point of being resolved; it proves that the coincidences between the bright lines of the metallic spectra and the dark lines of the solar spectrum remain permanent; and it shows that many of the bands of the metallic spectra are broad colored spaces crossed by bright lines.

FROM THE STEAMPRESS OF JOHN A GRAY & GREEN,